BRUHATH BANGALORE MAHANAGARA PALIKE

YALAHANKA ELECTRICAL DIVISION

E MEASUREMENT BOOK

Name of work:- Providing LED street Lights,Control switches and other accessories at veerasagara Main road, BHEL Layout, Best County Layout surrounding area In Ward No 3.

BRUHATH BANGALORE MAHANAGARA PALIKE

Yalahanka ELECTRICAL DIVISION

PRE MEASUREMENT BOOK

Name of work: :- Providing LED street Lights,Control switches and other accessories at veerasagara Main road,

Name of Contractror of nature of Agency:-Sri. Pradeep Kumar S N,M/s Ganga Enterprises

Job Code No:- 003-19-000031

Ref no and Date of commencement of work:EE(Project)Ynk Zone/WO/77/ 2019-20 Date:- 06 / 11 /2019

Ref no and Date of commencement of work:EE(Project)Ynk Zone/WO/000196/ 2019-20 Date:-18 /11/2019

Measurement Book No: 2563/18-19 **Page No:** 285 287 to 291.

Bill NO :-

Sl. No.	Description of item	Unit	Present Measurements		
			Qty	Tender Full Rate	Cost
1	Fabricating, supplying and erection of ...Mtrs long hot dip Galvanized Conical pole with BSEN 10025 grade S 355 JO steel plate for shaft, IS 2062 for base plate with door opening arrangements, including suitable boards, Bakelite sheet and MCBs as per IS specifications suitable to withstand the wind speed of 47 m/sec for .....Mtrs pole in single section and single joint welded as per IS 9595/IS 10178AWS having dimensions bottom .....mm, top....mm with 3mm thick, suitable base plate and 4Nos of ..... long J bolts along with template and the pole shall be hot dip galvanized in single dipping with not less than 65micron as per ASTM-A123 and 153 etc.,(excluding foundation) as per drawing appended. 3 meters - Top 75mm and bottom 105 mm dia	Nos	22	3500.00	77000.00
2	Supplying and Fixing of.....mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluorescent tube street light fitting of all capacities to GI or CI or rail or RCC pole / wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires. Using 32mm dia G.I.pipe	Nos	23	603.00	13869.00
3	LED Street light.Supply of LED Streetlight with pressure die cast aluminum housing body with optimal heat sink for better thermal dissipation. Diffuser with Injection moulded & is made of polycarbonate material with high transmission index, delivering superior light output. Rated life Burning Hrs 50000 hr @ Lumen Maintenance of 70%. CCT > 5500K, IP 66 optical and electrical compartment & impact resistance of complete luminare > IK08. Power Factor >0.9 with mains Current should not be greater than 0.1A to 0.7A & Surge Protection- Min 4KV along with Over voltage/Overload, short circuit/ miswiring protection. Compatible for pole mounting with outer dia of 40mm to 50mm. Universal Voltage driver to operate wide voltage range from 100V to 270V 50/60Hz application. Over load & Short circuit protection ensures reliable operation in spite of problem in output side. Compliance to IS 10322/IEC 60598, LM 79 & LM 80 Adherence with RoHS. UL approved MCPCB. Top access street light with single screw to ensure ease of maintenance at the sight site location with minimized minimal tools. LED Light fixture with .....W System Power consumption. LED Efficiency>130lm/w at 1W & Fixture Efficiency >80lm/w with nominal CRI >75. Luminaire manufacturer should have in-house facility accredited by NABL/CPRI & any Government certified agency & Design & Development facility certified by ISO 9001:2008 . Housing with supplier word mark /name shall be Engraved / Embossing on the die cast housing/ Body part. Warranty of 5 Years against any manufacturing defect working under standard electrical conditions as mentioned above should be given by LED source manufacture. Suitable for B1/B2 Roads as per IS 1944 Part I & Part II. LED Streetlight 24watts	Nos	23	5850.00	134550.00

4	Supplying and fixing electro mechanical timer (without contactor) using necessary bolts, nuts and waqshers etc.. Group A, PWD Elec SR 2006-07.	Nos	1	3200.00	3200.00
5	Supply and fixing of 4-pole power contactor with NO/NC contacts on existing wood / panel board using necessary bolts, nuts, washers and wiring etc., complete. d) 100-125 Amps	Nos	1	8500.00	8500.00
6	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10K and Complete wiring as required confirming IEC 60898. b) 40-63 Amps SP, Group 'A'	Nos	4	585.00	2340.00
7	Wiring for lighting/power circuit using one of PVC insulated 1100v grade, multis and Copper conductor single core cable in open or consealed system of wiring.I Group A Materials.g)16 sqmm	Mtrs	10	42.00	420.00
8	1.5 Sqmm	Mtrs	150	9.00	1350.00
9	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia	Nos	1	100.00	100.00
10	Supplying and fixing of Procelain fuse channel with cut out on exisiting wooden/panel using necessary nuts, bolts and washers etc., complete.d) 100 Amps	Nos	3	150.00	450.00
11	Supplying and fixing of class A (medium duty) GI pipe of wall thick ness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class. c) 40mm	Mtrs	6	152.00	912.00
12	Fabricating supplying and mounting MS box made out... SWG suitable lfor floor/wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size cdlamps with mecessary cable entry pipe with gland and box should be finished with 2 cdoats of red oxide primer paint and finally finished with approved colour enameled metal pain etc., complete. b)16 swg	Sqcms	28950	0.25	7237.50
13	Supplying and fixing angle iron frame work fabricated out of M.S. angle iron.. And M.S. flat... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. a)40X40X6mm	Mtrs	5	125.00	625.00
14	Supplying and running of GI/Copper strips for grounding connections, using necessary fixing materials as required. GI strip 25x3mm	Mtrs	5	10.00	50.00
15	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.16 Sq mm	Nos	2	150.00	300.00
16	Supplying of LT UG cable having aluminium conductor PVC insulated, sheathed, galvanished, steel wire/steel tap armoured cable with PVC outer sheating 1.1 KV class.I. Class 'A' PVC Cable. 4 core 16 sqmm	Mtrs	496	115.00	57040.00

	Pannel Board to pole -01 15mtrs				
	Pole-01 to pole -02 16 mtrs				
	Pole-02 to pole -03 16 mtrs				
	Pole-03 to pole -04 15 mtrs				
	Pole-04 to pole -05 17 mtrs				
	Pole-05 to pole -06 15 mtrs				
	Pole-06 to pole -07 17.5 mtrs				
	Pole-07 to pole -08 20 mtrs				
	Pole-08 to pole -09 20 mtrs				
	Pole-09 to pole -10 16 mtrs				
	Pole-10 to pole -11 16 mtrs				
	Pole-11 to pole -12 20 mtrs				
	Pole-12 to pole -013 20 mtrs				
	Pole-13 to pole -14 20 mtrs				
	Pole-14 to pole -15 20 mtrs				
	Pole-15 to pole -16 30 mtrs				
	Pannel Board to pole -18 19 mtrs				
	Pole-17 to pole -19 30 mtrs				
	Pole-18 to pole -20 20 mtrs				
	Pole-19 to pole -21 20 mtrs				
	Pole-20 to pole -22 17 mtrs				
	Pole-21 to pole -23 20 mtrs				
	Total 496 Mtrs				
17	3.5 core 25 sqmm	Mtrs	45	125.00	5625.00
18	Labour charges for laying of 1.1 KV class UG cable when supplied agency in existing trench GI pipe / stoneware pipe / on wall /on pole as required. I. In existing trench/duct. 6 sqmm to 16 sqmm	Mtrs	496	5.00	2480.00
19	b)25sqmm to 75 sqmm	Mtrs	45	5.00	225.00
20	Digging of trench of 0.6 m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc.,complete. (As perCivil SR KSRB I-2, P-7).a) In soil (ordinary)	Mtrs	446	55.00	24530.00
21	Providing Rcc Pole pedstal of Size 0.3x0.3x0.8 Mtrs Including digging of pit, tor steel, anchoring bolts nuts ,templates ,Centring,1;4;8base concrete,1;2;4pedestal concrete and etc coplete as per the data sheet enclosed	Mtrs	22	1850.00	40700.00
	Total Rs				**381503.50**

ERTIFICATE:

1. This is certify that the work done is saticefactorily.
2. This is certify that the bill amount calimed in this bill does not claimed in any of the previous bill.

Junior Engineer(Elec)
Yalahanka Division

Asst.Exe.Engineer(Elec)
Yalahanka Division